

REMARKS

At the time of the Office Action, claims 18 and 26-47 were pending. In this Response, no claims are canceled or added. No claims are amended. Accordingly, claims 18 and 26-47 remain currently pending.

In the Office Action, claims 18, 26 and 37 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Additionally, claims 18, 26-28, 30-32, 37-39 and 41-43 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,410,722 to Cornaby (“the Cornaby reference”), in view of U.S. Patent No. 5,706,437 to Kirchner et al. (“the Kirchner reference”). Claims 29 and 40 were rejected under 35 U.S.C. § 103(a) as being obvious over Cornaby in view of Kirchner and further in view of Douceur et al., Patent No. 6,041,053. Claims 35 and 46 were rejected under 35 U.S.C. § 103(a) as being obvious over Cornaby in view of Kirchner and further in view of Peterson et al., Patent Publication No. 2006/0010420 (“the Peterson reference”). Further, claims 36 and 47 were rejected under 35 U.S.C. § 103(a) as being obvious over Cornaby in view of Kirchner and further in view of Fischer et al., Patent Publication No. 2002/0163932 (“the Fischer reference”). Similarly, claims 33, 34, 44, and 45 were rejected under 35 U.S.C. § 103(a) as being obvious over Cornaby in view of Kirchner and further in view of Johnson et al., Patent No. 5,133,053 (“the Johnson reference”). Each of these rejections is addressed in detail below.

The Rejection Under 35 U.S.C § 101

With respect to the Examiner's rejection of claims 18 and 26 and 37 under Section 101 as being directed to non-statutory subject matter, the Examiner stated that:

Claim 18 fails to produce tangible results and therefore is not statutory. This claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce a tangible result. Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data.

Claims 26-36 are directed to a computer system. According to the specification, said *computer system* is software per se. Paragraph 0014 of the specification recites "*A computer system using a queuing system and method for managing a queue having plurality of generic queue headers connected together by a plurality of links in a predetermined manner*". As such, said computer system is software per se and does not fall within the four statutory categories.

Additionally, claims 26-36 fail to produce tangible results and therefore are not statutory. This claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce a tangible result. Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature, as, for example, a thought, a computation, or manipulated data.

Claims 37-47 fail to produce tangible results and therefore are not statutory. This claimed subject matter lacks a practical application of a judicial exception (law of nature, abstract idea, naturally occurring article/phenomenon) since it fails to produce a tangible result. Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather

than a result that may be interpreted to be abstract in nature, as, for example, a thought, a computation, or manipulated data.

Office Action, pages 5-7.

The Applicant respectfully traverses these rejections.

Legal Precedent

According to the Supreme Court, congress intended statutory subject matter to “include anything under the sun that is made by man.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09; 206 U.S.P.Q. 193, 197 (1980). Indeed, exclusions of statutory subject matter are limited to laws of nature, natural phenomena and abstract ideas. *See Diamond v. Diehr*, 450 U.S. 175, 185; 209 U.S.P.Q. 1, 7 (1981). Other than these specific exceptions, therefore, nearly anything man made is statutorily patentable subject matter under 35 U.S.C. §101.

In determining when process or method claims include statutory subject matter, the Supreme Court in *Diehr* stated that “[t]ransformation and reduction of an article ‘to a different state or thing’ is the clue to the patentability of a process claim that does not include particular machines.” *See id.* 450 U.S. at 183-185, 209 U.S.P.Q. at 6. In addition to the Supreme Court’s transformation and reduction test, the Federal Circuit has developed a second test which may also be used to determine if a claim recites statutory subject matter, namely does the claim produce a “useful, concrete, and tangible result.” *In re Alappat*, 31 U.S.P.Q.2d 1545, 1557 (Fed. Cir. 1994) (*en banc*). The Federal Circuit further elaborated on this second test by holding that one must look to “the essential characteristics of the subject matter, in particular, its practical utility.”

State Street Bank & Trust Co. v. Signature Financial Group Inc., 47 U.S.P.Q.2d 1596, 1602 (Fed. Cir. 1998).

However, explaining this “useful, concrete, and tangible” test, the Federal Circuit has stated “the dispositive inquiry is whether the claim *as a whole* is directed to statutory subject matter.” *In re Alappat*, 31 U.S.P.Q.2d at 1557. Indeed, there has been no requirement from Congress, the Supreme Court, or the Federal Circuit mandating that a *specific final result* be shown for a claim to qualify under Section 101. *See id.* Rather, the Federal Circuit has specifically stated “the *Alappat* inquiry simply requires an examination of the contested claims to see if the claimed subject matter *as a whole* is a disembodied mathematical concept representing nothing more than a ‘law of nature’ or an ‘abstract idea,’ or if the mathematical concept has been reduced to *some practical application rendering it ‘useful’*.” *AT&T Corp. v. Excel Communications, Inc.*, 50 U.S.P.Q.2d 1447, 1451 (Fed. Cir. 1999) (emphasis added). Therefore, if a claim meets either the transformation and reduction test put forth by the Supreme Court, or if the claim, read as a whole and in light of the specification, produces any useful, concrete, and tangible result, the claim meets the statutory requirements of Section 101. *See id.*

Furthermore, in a Memorandum dated April 12, 2007, John J. Love, Deputy Commissioner for Patents Examination Policy, specifically addressed the patentable subject matter issue. In the Memorandum, attached herewith for Examiner’s convenience, Mr. Love stated that the focus should be on the result of the claimed subject matter. “If the result has a real

world practical application/use, then the test has been satisfied. The claim need not include the uses to which the result is ultimately put, just the result itself.” Memorandum.

Claim 18 recites, *inter alia*, “A method for managing a queue ... comprising: attaching a plurality of data structures to the plurality of queue headers ... controlling operations of the plurality of queue headers utilizing a function library containing a plurality of queue function calls, wherein the function calls are configured to manage the plurality of queue headers operating on the data structures.” Claim 26 recites, *inter alia*, “A computer system that employs a queuing system, the queuing system comprising ... a data structure attached to at least one of the plurality of generic queue headers without reference to the plurality of links, wherein the plurality of queue headers are controlled by a function library containing a plurality of function calls configured to manage the plurality of queue headers operating on the data structures.” Claim 37 recites, *inter alia*, “A method of operating a queuing system, the method comprising the acts of: attaching a data structure to at least one of the plurality of generic queue headers without reference to the plurality of links, wherein the plurality of queue headers are controlled by a function calls configured to manage the plurality of queue headers operating on the data structures.”

As such, the results produced by the independent claims may be viewed respectively as a method for managing a queue having all the properties set forth in claim 18, a computer system that operates according to the recitations of claim 26 and a method of operating a queuing system that manages information in the specific fashion recited in claim 37, each providing the recited

functionality set forth in the claims. Furthermore, as set forth in the specification of the instant application:

The discrete function calls enable the user to manage the queue headers 202, 204 and 206 without modifying and debugging the queue headers every time another application is called upon to be performed. Furthermore, the user need not know about the structure of the queue headers 202, 204 and 206, because the underlying queue headers and links are managed by the discrete function calls and not by the user.

Specification, page 11, lines 6-14.

The fact that the recitations of the independent claims allow improved computer performance with reduced effort is undisputable evidence that claims 18, 26 and 37 recite results that have a real world practical application and are directed to patentable subject matter under the current law, and are consistent with the PTO Memorandum dated April 12, 2007, referred to above, noting in particular: "The claim need not include the uses to which the result is ultimately put, just the result itself."

Additionally, with respect to claims 26-36, it appears that the Examiner is rejecting the claims under Section 101 merely because they are directed to software. In this regard, Applicant respectfully asserts that software is patentable subject matter. The Commissioner of Patents has recognized the patentability of software, provided that it is embodied in a tangible medium. Indeed, the Commissioner has directly stated that, "computer programs embodied in a tangible medium...are patentable subject matter under 35 U.S.C. §101." *See In re Beauregard*, 53 F.3d 1583 (Fed Cir. 1995). It is clear from the specification, and the claims themselves, that the

queuing system is intended to be implemented in a tangible medium. Indeed, claim 26 is directed to a “computer system that employs a queuing system.” Independent claims 18 and 37 are expressly directed to the operation of a queuing system. Applicant respectfully asserts that one of ordinary skill in the art would understand that the presence of a queuing system, which inherently stores multiple items of data, necessarily implies that data is stored on a tangible medium (for example, disk memory or the like).

Accordingly, for at least the reasons set forth above, Applicant respectfully asserts that all of the pending claims are directed to statutorily patentable subject matter. Therefore, Applicant respectfully requests withdrawal of the rejection of the pending claims as being unpatentable under Section 101.

The Rejections Under 35 U.S.C. § 103

With respect to the rejection of independent claim 18 under 35 U.S.C. § 103(a) as being obvious over the Cornaby reference in view of the Kirchner reference, the Examiner stated:

As per claim 18, Cornaby teaches the limitations:

“A method for managing a queue having a plurality of queue headers within a computer system comprising the steps of :”
(Cornaby, Figure 2 to Figure 3L)

“attaching a plurality of data structures to the plurality of queue headers, where each data structure is attached to one of the plurality of queue headers” (Cornaby, Figure 2-3L *which shows a plurality of queue headers wherein each queue header includes a data structure*; Column 3 Line 64 through Column 4 Line 1, i.e., *FIG. 2 is a configuration consisting of four queues, 20, 21, 22, and 23, within the queue system for the purpose of explaining the preferred embodiment of the queue system. The configuration is comprised of queue D23 which acts as the empty queue and which initially will contain all the task registers in the queue system*;

Note that task registers are data structures attached to queue headers; and Column 4 Lines 60-64, i.e., In view of for simplicity in describing the invention, the task register in queues A 20, B21, and D23 are addressed ordered within the queue and the task register in queues A 20, B21, and D23 are addressed ordered within the queue and the task registers in queue C23 are ordered in the sequence of insertion into the queue); and

“controlling operations of the plurality of queue headers utilizing one of a plurality of queue function calls” (Cornaby, Figure 2-3L; and Column 4 Lines 2-5, i.e., When the processor 10 receives a task to be performed by using the queue system, the task is assigned to the task register having the lowest address in queue D23);

“utilizing a plurality of queue function calls, wherein the function calls are configured to manage the plurality of queue operating on the data structures” (Cornaby, Figure 2-3L; and Column 4 Lines 2-5, i.e., When the processor 10 receives a task to be performed by using the queue system, the task is assigned to the task register having the lowest address in queue D23).

Cornaby does not explicitly teach the limitation: “a function library containing a plurality of function calls”.

On the other hand, Kirchner teaches the limitation:

“a function library containing a plurality of function calls” (Kirchner, Column 8 Lines 10-36, i.e., The client application processes 902 and 904 use the client APIs 912 and 913, which include a library of generic functions as will be discussed below, to connect to and communicate with the desired service module at a server 914. API functions 912 and 913 are called to make application requests for a service to the CLPROCs 906 and 908. Specifically, the function calls in the client APIs 912 and 913 will encode a NIDS message and write the NIDS message and its associated data to the CLPROCs 906 and 908 via a combined shared memory and UNIX message queue mechanism 922. In the CLPROC's 906 and 908, an NSPP header is added to the NIDS message. The path of the queue mechanism 922 between the client applications 902 and 904 and the CLPROCS 906 and 908 is shown by arrows 920 and 921, respectively. Because of the system resources within the application process 902 (ARU style model), the arrow 920 showing the path of the request message is shown to originate in the application process 902. For application process 904, the unique identification is generated within the client API 913. Thus, the arrow 921 showing the path of the request message is shown to originate at the client API 913).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the method of Cornaby, which teaches queue headers which are utilized to make function calls and to which data structures are attached, with the method of Kirchner, which teaches a function library, so that, in the combined method, a function library containing a plurality of queue function calls is used to manage/control the data structures which are attached to queue headers. One would have been motivated to do so in order to integrate function calls of similar operations in one container, which is well known in the art of operating systems.

Office Action, pages 8-10 (emphasis in original).

Independent claims 26 and 37 were rejected under a similar rationale. Applicant respectfully traverses this rejection of claims 18, 26 and 37.

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (B.P.A.I. 1979). The pending claims must be given an interpretation that is reasonable and consistent with the *specification*. *See In re Prater*, 415 F.2d 1393, 1404-05, 162 U.S.P.Q. 541, 550-51 (C.C.P.A. 1969) (emphasis added); *see also In re Morris*, 127 F.3d 1048, 1054-55, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997); *see also* M.P.E.P. §§ 608.01(o) and 2111. Indeed, the specification is “the primary basis for construing the claims.” *See Phillips v. AWH Corp.*, No. 03-1269, -1286, at 13-16 (Fed. Cir. July 12, 2005) (*en banc*). One should rely *heavily* on the written description for guidance as to the meaning of the claims. *See id.*

Additionally, interpretation of the claims must also be consistent with the interpretation that *one of ordinary skill in the art* would reach. *See In re Cortright*, 165 F.3d 1353, 1359, 49

U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999); M.P.E.P. § 2111. “The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation.” *See Collegenet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 75 U.S.P.Q.2d 1733, 1738 (Fed. Cir. 2005) (quoting *Phillips v. AWH Corp.*, 75 U.S.P.Q.2d 1321, 1326). The Federal Circuit has made clear that derivation of a claim term must be based on “usage in the ordinary and accustomed meaning of the words amongst artisans of ordinary skill in the relevant art.” *See id.*

Moreover, in establishing a *prima facie* case for obviousness, “the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long-felt but unresolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” *KSR Int’l Co. v. Teleflex, Inc.* No. 04-1350, slip op. at 2 (U.S. April 30, 2007) (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)).

Additionally, it is often necessary “to look to interrelated teachings of multiple patents, the effects of demands known to the design community or present in the market place; and the background knowledge possessed by a person having ordinary skill in the art.” *Id.* at 14. This analysis should be made explicit. *Id.* (citing *In re Khan*, 441 F.3d 977, 988 (Fed. Cir. 2006)) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements;

instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”).

Furthermore, a claim having several elements is *not* proved obvious merely by demonstrating that each of its elements was known in the prior art. *Id.* In this regard, the *KSR* court stated that “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does...because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.” *Id.* at 14-15. As such, the obviousness inquiry does not hinge on demonstrating that elements were known in the art. Rather, the obviousness inquiry focuses on whether the claimed subject matter would have been obvious to persons having ordinary skill in the art in view of the demands and practices of the design community at the time of filing of the application. *See id.*

In the present case, the rejection of independent claims 18, 26 and 37 under Section 103 as being obvious over the Cornaby reference in view of the Kirchner reference is improper because the Cornaby reference and the Kirchner reference, taken alone or in hypothetical combination, do not disclose each and every element recited by the claims. Specifically, independent claim 18 recites “[a] method for managing a queue having a plurality of queue headers.” Further, the method comprises the acts of “attaching a plurality of *data structures* to the plurality of queue headers” and “controlling operations of the plurality of queue headers

utilizing *a function call library containing a plurality of queue function calls*, wherein the functions *calls are configured to manage* the plurality of queue headers operating on the data structures.” (Emphasis added). Similarly, independent claims 26 and 37 recite a system and method, respectively, such that the “plurality of queue headers are *controlled by a function call library* containing a plurality of *function calls configured to manage the plurality of queue headers* operating on the data structures.” (Emphasis added).

Although the Examiner admits that the Cornaby reference “does not explicitly teach the limitation: ‘a function library containing a plurality of function calls,’” the Examiner asserts that the Cornaby reference discloses controlling operation of the plurality of queue headers utilizing a function call library containing a plurality of *function calls* configured to manage the plurality of queues headers operating on the data structures. See Office Action, page 9. With regard to these limitations, the Examiner relied on a single portion of the Cornaby reference which states:

[w]hen processor 10 receives a task to be performed by using the queue system, the task is assigned to the task register having the lowest address in queue D 23.

Office Action, page 6 and Cornaby, col. 4, lines 2-4.

While the cited portion of the Cornaby reference describes the operation of a processor when receiving a task, there is absolutely no teaching, suggestion or illustration in the Cornaby reference regarding controlling operations of the plurality of *queue headers* utilizing *queue function calls* and utilizing a plurality of *queue function calls*, wherein the function calls are configured to manage the plurality of queue operating on the data structures. Indeed, Applicant

notes that Cornaby contains no discussion of function calls at all. As such, Applicant respectfully asserts that the Cornaby reference does not disclose the limitations controlling operation of the plurality of queue headers utilizing one of a plurality of function calls and utilizing a function call library containing a plurality of queue function calls configured to manage the plurality of queues operating on the data structures, as set forth in claims 18, 26 and 37.

The Kirchner reference fails to obviate the deficiencies of the Cornaby reference in this regard. The Kirchner reference is directed to providing generic layer protocol that enables transactions between a client and a server. *See* Kirchner, abstract. The portion of the Kirchner reference relied on by the Examiner discloses a “library of generic functions” which apparently contain “function calls.” *See id.* at col. 8, lines 10-36. However, the function calls in the Kirchner reference *do not* control operations of a plurality of queue headers or manage the plurality of queue headers. Indeed, the function calls of the Kirchner reference are directed to encoding and writing network messages via queues. *Id.* As stated in the Kirchner reference:

Specifically, the function calls in the client APIs 912 and 913 will encode a NIDS message and write the NIDS message and its associated data to the CLPROCs 906 and 908 via a combined shared memory and UNIX message queue mechanism 922. In the CLPROCs 906 and 908, an NSPP header is added to the NIDS message.

Kirchner at col. 8, lines 16-21.

As such, the Kirchner reference does not disclose anything with regard to function calls controlling or managing queue headers. Furthermore, the only mention of headers in the cited

portion of the Kirchner reference is to NSPP headers added to a NIDS message. The NSPP header is a NIDS Information Packet Protocol header that is added to a NIDS message transmitted between a client and a server in a network. *See id.* at col. 7, lines 3-44. The NSPP header, therefore, cannot reasonably be considered to be the equivalent of a queue header. Accordingly, the Kirchner reference fails to obviate the deficiencies of the Cornaby reference with respect to claims 18, 26 and 37. Specifically, the Kirchner reference does not disclose the limitations controlling operation of the plurality of queue headers utilizing a function call library containing a plurality of function calls configured to manage the plurality of queues operating on the data structures, as set forth in claims 18, 26 and 37.

For at least the reasons set forth above, Applicant respectfully asserts that the Cornaby reference and the Kirchner reference, taken alone or in hypothetical combination, fail to disclose all the limitations of independent claims 18, 26 and 37 and consequently cannot render obvious any of those claims. Accordingly, Applicant respectfully requests withdrawal of the rejection under Section 103 and allowance of claim 18, 26 and 37, as well as all claims depending therefrom.

The Examiner is respectfully reminded that in citing references under 35 USC 103, it is required that each reference be evaluated on the basis of the disclosure of that reference considered as a whole (*see* M.P.E.P. §2141.02) and not on the basis of a feature of any particular reference taken in isolation. When two (or more) references are cited as an alleged combination, account must be taken of the impact on the primary reference of hypothetical modification by the

other reference; if the result would render inoperable or change the principle of operation of the hypothetically modified reference, the proposed combination is improper (M.P.E.P. §2143.01). On this basis of evaluation, the proposed modification of Cornaby by Kirchner is clearly not sustainable and should be withdrawn.

The Douceur Reference Fails to Obviate the Deficiencies of the Cornaby and Kirchner

References with Respect to Claims 26 and 37

As stated above, the Examiner rejected claims 29 and 40 as being unpatentable over the Cornaby reference in view of the Kirchner reference, and in further view of the Doucer reference. Additionally, as set forth above, the Cornaby and Kirchner references fail to disclose all the limitations of independent claims 26 and 37. Applicant respectfully asserts that the Doucer reference fails to obviate the deficiencies of the Cornaby and Kirchner references with respect to independent claims 26 and 37.

The Doucer reference is directed to a technique which utilizes a trie-indexed hierarchy forest that accommodates wildcards for retrieving a pattern stored in the forest that is identical to or subsumes a key. *See* Doucer, abstract. Stated differently, the Doucer reference is directed to techniques that can rapidly retrieve a stored pattern in a data structure and that allows for a wildcard to be stored at any arbitrary bit position in the pattern. *See id.* at col. 3, lines 63 through col. 4, line 28. However, the Doucer reference does not disclose controlling operation of the plurality of queue headers utilizing a function call library containing a plurality of function calls configured to manage the plurality of queues operating on the data structures, as set forth in

claims 26 and 37. As such, the Doucer reference does not cure the deficiencies of the Cornaby and Kirchner references with respect to claims 26 and 37. Accordingly, the Cornaby, Kirchner and Doucer references, taken alone or in hypothetical combination, fail to disclose all of the limitations set forth in independent claims 26 and 37. Dependent claims 29 and 40 are allowable at least based on their dependencies from an allowable independent claim. Therefore, Applicant respectfully requests withdrawal of the rejection under Section 103 of claims 29 and 40, as well as allowance of those claims.

The Peterson Reference Fails to Obviate the Deficiencies of the Cornaby and Kirchner References with Respect to Claims 26 and 37

As stated above, the Examiner rejected claims 35 and 46 as being unpatentable over the Cornaby reference in view of the Kirchner reference, and in further view of the Peterson reference. Additionally, as set forth above, the Cornaby and Kirchner references fail to disclose all the limitations of independent claims 26 and 37. Applicant respectfully asserts that the Peterson reference fails to obviate the deficiencies of the Cornaby and Kirchner references with respect to independent claims 26 and 37.

The Peterson reference is directed to a software tool that allows users to review the creation and evolution of all or part of a multimedia title created using the tool. *See* Peterson, abstract. As such, the Peterson reference is directed to techniques that allow for authors of multimedia content to review the creation and evolution of the content. *Id.* at paragraphs 23 and 24. However, the Peterson reference does not disclose controlling operation of the plurality of

queue headers utilizing a function call library containing a plurality of function calls configured to manage the plurality of queues operating on the data structures, as set forth in claims 26 and 37. As such, the Peterson reference does not cure the deficiencies of the Cornaby and Kirchner references with respect to claims 26 and 37. Accordingly, the Cornaby, Kirchner and Peterson references, taken alone or in hypothetical combination, fails to disclose all the limitations set forth in claims 26 and 37. Dependent claims 35 and 46 are allowable at least based on their dependencies from an allowable independent claim. Therefore, Applicant respectfully requests withdrawal of the rejection under Section 103 of claims 35 and 46, as well as allowance of those claims.

For at least the reasons set forth above, therefore, Applicant respectfully requests withdrawal of the rejection under Section 103 of claims 35 and 46, as well as allowance of the claims.

The Fischer Reference Fails to Obviate the Deficiencies of the Cornaby and Kirchner References with Respect to Claims 26 and 37

As stated above, the Examiner rejected claims 36 and 47 as being unpatentable over the Cornaby reference in view of the Kirchner reference, and in further view of the Fischer reference. Additionally, as set forth above, the Cornaby and Kirchner references fail to disclose all the limitations of independent claims 26 and 37. Applicant respectfully asserts that the Fischer reference fails to obviate the deficiencies of the Cornaby and Kirchner references with respect to independent claims 26 and 37.

The Fischer reference is directed to a method for providing synchronous transport or packets between asynchronous network nodes. *See* Fischer, abstract. However, Applicant asserts that the Fischer reference does not disclose controlling operation of the plurality of queue headers utilizing a function call library containing a plurality of function calls configured to manage the plurality of queues operating on the data structures, as set forth in claims 26 and 37. As such, the Fischer reference does not cure the deficiencies of the Cornaby and Kirchner references with respect to claims 26 and 37. Accordingly, the Cornaby, Kirchner and Fischer references, taken alone or in hypothetical combination, fails to disclose all the limitations set forth in claims 26 and 37. Dependent claims 36 and 47 are allowable at least based on their dependencies from an allowable independent claim. Therefore, Applicant respectfully requests withdrawal of the rejection under Section 103 of claims 36 and 47, as well as allowance of those claims.

The Johnson Reference Fails to Obviate the Deficiencies of the Cornaby and Kirchner References with Respect to Claims 26 and 37

As stated above, the Examiner rejected claims 33, 34, 44, and 45 as being unpatentable over the Cornaby reference in view of the Kirchner reference, and in further view of the Johnson reference. Additionally, as set forth above, the Cornaby and Kirchner references fail to disclose all the limitations of independent claims 26 and 37. Applicant respectfully asserts that the Johnson reference fails to obviate the deficiencies of the Cornaby and Kirchner references with respect to independent claims 26 and 37.

The Johnson reference is directed to a system for efficient message handling implemented in a UNIX derived operating system. *See* Johnson, abstract. The system is for use in distributed services network and includes a plurality of multi-processing, multi-tasking node among which interprocess communication occurs via queues. *See id.* However, the Johnson reference does not disclose controlling operation of the plurality of queue headers utilizing a function call library containing a plurality of function calls configured to manage the plurality of queues operating on the data structures, as set forth in claims 26 and 37. As such, the Johnson reference does not cure the deficiencies of the Cornaby and Kirchner references with respect to claims 26 and 37.

Accordingly, the Cornaby, Kirchner and Johnson references, taken alone or in hypothetical combination, fail to disclose all the limitation of claims 26 and 37. Dependent claims 33, 34, 44, and 45 are allowable at least based on their dependencies from an allowable independent claim. Therefore, Applicant respectfully requests withdrawal of the rejection under Section 103 of claims 33, 34, 44, and 45, as well as allowance of the claims.

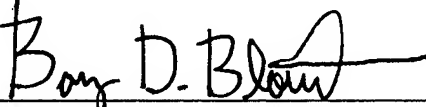
In view of the foregoing remarks, Applicant respectfully asserts that the subject matter of independent claims 18, 26 and 37 is not made obvious by any of the cited references. Therefore, Applicant respectfully requests withdrawal of the rejections of all pending claims under Section 103, and allowance of all pending claims.

Conclusion

In view of the remarks set forth above, the Applicant respectfully requests reconsideration of the Examiner's rejections and allowance of all pending claims 18 and 26-47. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Date: July 31, 2007



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MEMORANDUM



UNITED STATES PATENT AND TRADEMARK OFFICE



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MEMORANDUM

DATE: April 12, 2007
TO: Technology Center Directors
FROM: John J. Love *J. Love*
Deputy Commissioner
For Patent Examination Policy
SUBJECT: Clarification of Interim Guidelines For Examination of Patent Applications
for Subject Matter Eligibility

Certain inconsistencies have come to my attention in the application of the Interim Guidelines For Examination of Patent Applications for Subject Matter Eligibility, which are set forth in section 2106 of the Manual of Patent Examining Procedure (8th Ed. Rev. 5, Aug. 2006) (MPEP). The situation arises in the context of whether or not a claim is for a practical application of an abstract idea, law of nature, or natural phenomenon. As stated in the Interim Guidelines, a claim is for a practical application of an abstract idea, law of nature, or natural phenomenon when the claimed invention "transforms" an article or physical object to a different state or thing, or when the claimed invention produces a useful, concrete and tangible result. See MPEP 2106, subsection IV.C.2.

Focus on Result

A practical application in this context can be the result itself, and does not require that steps or additional limitations be added to the claim. As stated in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed. Cir. 1998):

Today, we hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"-- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.

It is the result that should be the focus. If the result has a real world practical application/use, then the test has been satisfied. The claim need not include the uses to which the result is ultimately put, just the result itself. Another example would be an improved method for measuring blood sugar levels in human beings. In this example, the end result is the blood sugar level which is a practical application for diagnostic purposes. Accordingly, reciting the improved method, and the result it achieves---the measurement of the blood sugar level---is all that is necessary for patent-eligibility. The diagnostic steps that occur after the determination of the blood sugar level need not necessarily be present in the claims in order for the claims to be statutory.

Use of Specific Terminology

Another area of inconsistency surrounds the use of the terms such as “determining,” “calculating,” and similar expressions. Some object to these as not creating a tangible result. Such terms may in fact be sufficient to establish a tangible result. *See, e.g., State Street*, 149 F.3d at 1375, 47 USPQ2d at 1602 (holding the calculation of a number having a real world value and to be a “useful, concrete, and tangible result”) and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999) (holding a method claim including the generation of a message record for an interexchange call to be statutory). The specification should be referred to for a meaning of the terms. *See In re Musgrave*, 431 F.2d 882, 893, 167 USPQ 280, 289 (CCPA 1970) (“[w]e cannot agree with the board that these claims (all the steps of which can be carried out by the disclosed apparatus) are directed to non-statutory processes merely because some or all the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the processes to think. . . .”).